

Claims

What is claimed is:

1. A projection type display unit, comprising,
 - an imager defining a plurality of controllable pixels;
 - 5 a light source for exclusively generating light of a selected color, said light source arranged for transmitting said light through said imager to produce an image; and
 - a projector lens for magnifying and focusing said image for projection on a screen;
 - wherein said light source is comprised of a CRT device exciting a resonant microcavity with an active region, said active region having a phosphor disposed therein for exclusively emitting light of said selected color.
2. The projection display unit according to claim 1 wherein said imager is an LCOS device.
3. The projection display unit according to claim 1 wherein three said imagers are provided and three said CRT devices are provided, each of said CRT devices exclusively generating a distinct color of light for projection through a respective
20 one of said imagers to produce three distinct color images.
4. The projection display unit according to claim 3 wherein said three CRT devices produce red, green and blue light respectively.
- 25 5. The projection display unit according to claim 4 further comprising an optical combiner, said optical combiner merging each of said distinct color images to form a single composite image.
6. An illumination source for a LCOS projection system, comprising:

- 5 a floodscreen cathode ray tube;
an array of resonant microcavities excited by said CRT for exclusively
generating light of a selected color.
- 10 7. The illumination source according to claim 6 wherein said array of resonant
microcavities is arranged so that said light is projected through an LCOS device
to produce an image.
8. The illumination source according to claim 7 further comprising a projector
lens for magnifying and focusing said image for projection on a screen.
9. A method for displaying an image, comprising,
exciting with a CRT an array of resonant microcavities configured for
exclusively emitting light of a selected color;
projecting said light through an LCOS imager defining a plurality of
controllable pixels to produce an image; and
magnifying and focusing said image through a lens for projection on a
screen.
10. The method according to claim 9 further comprising the steps of:
25 optically combining said image produced with said light of said selected
color with at least one other image of a second selected color distinct from said
first selected color.
11. The method according to claim 10 wherein said colors are selected from
30 the group consisting of red, green and blue.